

THE ONTARIO WATER RESOURCES COMMISSION

WATER POLLUTION SURVEY

OF THE

TOWN OF KEEWATIN

DISTRICT OF KENORA

MOE KEE WAT ATHM

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1964



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REPORT



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on

WATER POLLUTION SURVEY

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District of Kenora

September 14, 1964

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REPORT

ONTARIO WATER RESOURCES COMMISSION

INTRODUCTION

A water pollution survey was conducted in the Town of Keewatin on September 14, 1964.

Information pertinent to the survey was provided by Mr.E.L. Holmes, Clerk-Treasurer, and Mr.L. Hakenson, Public Health Inspector, Northwestern Health Unit assisted in the sampling programme.

GENERAL

The Town of Keewatin with a 1963 assessed population of 2,164

(1964 Municipal Directory) is located on the north-east shore of Lake
of the Woods.

General drainage from the town flows into Portage Bay, which is a water section of Lake of the Woods.

Some septic tank systems are being used satisfactorily for the treatment and disposal of sanitary and domestic wastes. However, due to an uneven terrain and rock conditions throughout the town area the general use of such systems is limited. A municipal system of night-soil collection is employed for the disposal of the bulk of domestic and sanitary wastes.

A partial sewer system is provided for the collection and conveying of storm and surface waters. These drains discharge into Portage Bay.

WATER QUALITY ANALYSES

In order to assess the degree of pollution being discharged from Keewatin into Lake of the Woods water areas, samples were collected, where possible, from the flow at or near the outfall of all drains and sewers which were located.

The sanitary chemical and bacteriological analyses of such samples are listed in Table 1.

The locations of the sampling points are indicated on the accompanying plan of Keewatin.

INTERPRETATION OF ANALYSES

For convenience in the interpretation of laboratory analyses the Ontario Water Resources Commission objectives for water quality in surface-water drains, or storm sewers, are listed:

5-Day BOD (Biochemical Oxygen Demand)

- not greater than 15 parts per million (ppm)

Suspended Solids

- not greater than 15 parts per million (ppm)

Coliform Count (most probable number)

- not greater than 2,400 per 100 cubic centimeters (c.c.)

Anionic Detergent (as ABS)

The presence of anionic detergent in water samples indicates pollution from domestic sources.

SIGNIFICANCE OF LABORATORY ANALYSES

The sanitary chemical analyses of samples number 1 and 3, and the bacteriological examinations of all samples collected, show results greatly in excess of the OWRC water quality objectives. It is therefore

indicated that inadequately treated wastes are being discharged into the storm drains. The excessively high coliform counts and anionic detergent contents indicate that domestic sewage is probably a major source of the pollution.

SUMMARY

A water pollution survey was conducted in the Town of Keewatin on September 14, 1964. The discharge flow from all drains investigated was grossly contaminated. The sanitary chemical analyses and bacteriological examinations indicated that inadequately treated domestic sewage is probably the major source of contamination.

RECOMMENDATIONS

As a result of the findings of this survey it is recommended that:

- 1. Measures be taken to discontinue the discharge of polluting materials from the Town of Keewatin into waters of Portage Bay and Lake of the Woods.
- 2. The Town of Keewatin consolidate the planning for a sewerage works programme, and proceed with the installation of sanitary sewers and the construction of a method of sewage treatment.
- 3. In the event that the institution of such a project is not feasible, it will then be necessary that all discharges of inadequately treated wastes to surface-water drains and storm sewers be located and discontinued.

This action will require each private and commercial property owner to provide adequate means of treatment and disposal for wastes

eminating from his property. Similarly adequate treatment is required for waste from each industrial operation.

All of which is respectfully submitted,

District Engineer C.E. McIntyre

Approved by K.H. Sharpe, Director.

TABLE I

TOWN OF KEEWATIN - WATER POLLUTION SURVEY

SURFACE-WATER DRAINS

Sample Number	Location of Sampling Points	5-Day BOD (ppm)	Soli Total	ds (p	Annual Control of the	Anionic Detergents as ABS (ppm)	Coliform Count per 100 c.c. M.P.N.
1.	Front St. at Main St.	52.0	980	74	906	21.0	240,000+
2.	Front St. at Tenth St.	7.2	734	26	708	4.6	240,000+
3.	Front St. at Portage St. (Boat Garage)	27.0	862	88	774	8.4	240,000+



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